Chapter I

Executive Summary

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Executive Summary

Timber cutting and other operations on lands managed by the Forest Service and the Bureau of Land Management within the range of the northern spotted owl have been brought virtually to a halt by federal court orders. As a result, the Administration commissioned the Forest Ecosystem Management Assessment Team to formulate and assess the consequences of an array of management options that might form the basis of a solution to the crisis. The Team was told that the objectives were to produce management alternatives that would comply with existing laws and produce the highest contribution to economic and social well being.

The effort reported here is conceived as Phase I of a multiphased approach to ecosystem management. In this first phase, the "backbone" for ecosystem management for the federal forests within the range of the northern spotted owl is, in varying combinations, constructed of a network of late-successional forests and an interim and long-term scheme for protection of aquatic and associated riparian habitats adequate to provide for threatened species and "at risk" species associated with such habitats. In subsequent phases it is expected that planning will be carried

out that extends ecosystem management concepts to multiple federal ownerships and, perhaps, to state and private lands (at the discretion of those landholders).

The Team was comprised of scientists and technical experts of a variety of disciplines from the Forest Service, Bureau of Land Management, Environmental Protection Agency, U.S. Fish and Wildlife Service, National Park Service, National Marine Fisheries Service, and from several universities. Over 600 scientists, technicians, and support personnel contributed in some fashion to this effort.

Some 48 previously prepared options addressing the issues of conservation of threatened species (spotted owls and marbled murrelets), anadromous fish, and the late-successional/old-growth ecosystems were examined and evaluated. Using the principles put forward in these previous exercises, 10 additional options were developed and analyzed. These options encompassed various mixtures of Late-Successional Reserves, Riparian Reserves, and prescriptions for the management of the forest both inside and outside of reserves. Most management would occur in areas outside of reserves, called the Matrix. The sizing, spacing, and silvicultural activities allowed in reserves varied between options. The size of the reserves varied from 4.2 to 11.5 million acres.

In one option, there is provision for 10 Adaptive Management Areas arrayed across the landscape and ranging from 84,000 to 400,000 acres. Their purpose is to provide areas where managers can use innovative approaches, perhaps at a landscape scale, to achieve management objectives. These areas will also provide a laboratory for innovative social mechanisms for managing federal lands and areas of mixed ownerships in a more cooperative and interactive fashion. These Adaptive Management Areas could be incorporated into any option presented, with some modification and additional assessment.

For each of the 10 options, the Team evaluated the likelihood of maintaining well-distributed habitat conditions on the federal lands for threatened marbled murrelets and northern spotted owls. In addition, for seven of the options, similar assessments were done for over 1,000 plant and animal species thought to be closely associated with late-successional forests. The likelihood of maintaining a connected viable late-successional ecosystem was also evaluated. These likelihoods varied across options but, in general, were found to be directly related to the amount of late-successional forest in reserve status. These results were

reported without comment as to whether they met the statutory requirements of the Endangered Species Act or the regulations issued pursuant to the National Forest Management Act.

At-risk fish species and stocks were similarly assessed, and the ratings seemed most sensitive to the degree of stream side/watershed protection afforded. Such assessments for the northern spotted owl and marbled murrelet resulted in eight of 10 options having a likelihood of achieving habitat conditions suitable to maintain viable populations well distributed on the federal lands. Of the 10 options for at-risk fish species or stocks, eight would result in a reversal of the trend of habitat degradation on federal lands and begin a process of recovery of the aquatic ecosystems on those lands. The Team conducted the most thorough assessment to date of the "viability" of the broad array of species associated with late-successional forest conditions. There were numerous problems in trying to evaluate "real world" biological conditions against the language in the regulations issued pursuant to the National Forest Management Act.

Probable annual sale quantity estimates were completed for each option and compared to harvest levels for the period 1980 through 1989 (4.6 billion board feet per year) and 1990 through 1992 (2.4 billion board feet per year). The anticipated sale level, including cull and salvage volume, ranged from 0.2 billion board feet per year to 1.8 billion board feet per year across the options.

Nonfederal timber harvests have historically accounted for two-thirds of the harvest in the region. Nonfederal timber harvests seem likely to respond to higher prices in the 1990's, resulting in cutting above the sustained yield levels at a rate of 9.4 billion to 9.8 billion board feet per year. In aggregate, timber harvested and processed from all owners is projected to be some 0.8 billion to 2.1 billion board feet (7 to 17 percent) less than the 1990 through 1992 level and 3.5 billion to 4.7 billion board feet (24 to 32 percent) less than the levels of the 1980's, depending on the option.

Direct timber industry employment was as high as 152,000 as recently as 1988. It was approximately 144,900 in 1990 and dropped to an estimated 125,400 in 1992. The employment level anticipated for the next decade varies from 112,900 to 125,000 across the options.

State level forecasts for Oregon and Washington indicate that the aggregate economy will continue to grow regardless of the option chosen. The Washington outlook is rather stable while Oregon's economy is poised to expand 7.4 to 8.7 percent in the aggregate, between 1992 and 1995.

Large-scale reductions are expected in federal receipts and shares to local counties. Unless Congress continues to provide a "safety net," local government revenues could decline by $147 million to $277 million from the 1990 through 1992 level of $294 million, depending on the option.

Consequences to communities vary by option and by rural community. Community capacity to accommodate to change seems to be the most important factor in a community's anticipated ability to adjust to lowered federal timber harvest levels. Those communities that are dependent for federal timber supply and have low capacity to adjust are those communities most at risk. Some communities have already suffered severe impact from reduced timber supply and will suffer even more under most -- probably all -- of the options developed. Suggestions are made as to how help may be provided to those communities during a period of transition.

We describe a possible and detailed scenario for carrying out a phased coordinated and collaborative movement to achievement of ecosystem management for the federal lands within the range of the northern spotted owl. It is obvious that a new approach to coordinated and collaborative government (i.e., interagency) activities is essential if there is to be speedy recovery from the current impasse. Suggestions are made as to how that might be achieved so that momentum may not be lost as the implementation of a preferred option for ecosystem management proceeds.

We have done our best to fulfill the charge given to us in the time allotted. We believe the assessments of the current situation, the previous assessments of the situation, and the options presented herein are adequate to support an informed decision as to a course of action. Our work as scientists, economists, analysts, and technicians is complete. Whatever decisions that may emerge from this work are now, most appropriately, in the hands of elected leaders.

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